Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An image processing system comprising:

image projection means for projecting at least two difference colored calibration images at different points of time;

sensing means for sensing each of the projected calibration images to output sensed information;

ratio information generating means for computing a ratio of image signal values or luminance values for each pixel in a sensing area obtained by sensing the calibration images, based on the sensed information to generate ratio information;

edge point detecting means for searching the ratio information to find a first value which represents a ratio of image signal values or luminance values among pixel regions each having a predetermined number of pixels in the sensing area, and for detecting edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;

pixel block image information generating means for converting sensed information of an area defined by the detected edge points into pixel block image information representing a ratio of image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points; and

correction means for correcting an image signal based on the pixel block image information,

wherein the correction means includes:

distortion correction means for correcting an image signal to correct distortion in an image based on the pixel block image information; and

color non-uniformity correction means for correcting an image signal to correct color non-uniformity based on the pixel block image information; and

wherein the image projection means projects an image based on an image signal with corrected distortion and corrected color non-uniformity.

~~Wherein the image projection means projects an image based on the corrected image signal.~~

2. (Currently Amended) The image processing system as defined in claim 1, wherein:

the ratio information generating means includes means for detecting a rectangular region defied by the pixel regions each having the first value equal to or larger than the first predetermined value as a temporary sensed projected image by searching the ratio information for the first value in vertical and horizontal directions from ~~corner~~ edge points of an area corresponding to the sensing area represented by the ratio information;

an image projected by the image projection means is a quadrangle; and

the edge point detecting means detects ~~corner~~ edge points at for corners of the sensed projected image ~~as the edge points of the sensed projected image~~, based on the temporary sensed projected image.

3. (Currently Amended) The image processing system as defined in claim 2, wherein:

when the number of detected ~~corner~~ edge points is three or ~~less in detecting corner points at four corners of the sensed projected image,~~ less, the edge point detecting means detects other ~~corner~~ edge points by using a predetermined method; and

the predetermined method includes:

counting the numbers of pixels from an edge pixel to a pixel having the ratio represented by the ratio information equal to or larger than a second predetermined value in each pixel line of the temporary sensed projected image;

computing a changing rate of a ratio of the number of pixels in every two adjacent pixels lines of the temporary sensed projected image; and

detecting pixels having the ratio represented by the ratio information equal to or larger than the second predetermined value as the other ~~corner~~ edge points in a pixel line having the changing rate equal to or larger than a third predetermined value.

4. (Currently Amended) ~~The image processing system as defined in claim 1, wherein the correction means includes:~~

~~distortion correction means for correcting an image signal to correct a distortion in an image based on the pixel block image information when a predetermined calibration image is projected; and~~

~~color non-uniformity correction means for correcting an image signal to correct color non-uniformity based on the pixel block image information when a predetermined calibration image is projected; and~~

~~wherein the image projection means projects an image based on the corrected image signal.~~

A projector comprising:

image projection means for projecting at least two different colored calibration images at different points of time;

sensing means for sensing each of the projected calibration images to output sensed information;

ratio information generating means for computing a ratio of image signal values or luminance values for each pixel in a sensing area obtained by sensing the calibration images, based on the sensed information to generate ratio information;

edge point detecting means for searching the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area, and for detecting edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;

pixel block image information generating means for converting sensed information of an area defined by the detected edge points into pixel block image information representing a ratio of image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points; and

correction means for correcting an image signal based on the pixel block image information,

wherein the correction means includes:

distortion correction means for correcting an image signal to correct distortion in an image based on the pixel block image information; and

color non-uniformity correction means for correcting an image signal to correct color non-uniformity based on the pixel block image information; and

wherein the image projection means projects an image based on an image signal with corrected distortion and corrected color non-uniformity.

5. (Currently Amended) ~~A projector comprising:~~

~~Image projection means for projecting at least two different colored calibration images at different points of time;~~

~~Sensing means for sensing each of the projected calibration images to output sensed information;~~

~~Ratio information generating means for computing a ratio of image signal values or luminance values for each pixel in a sensing area obtained by sensing the calibration images, based on the sensed information to generate ratio information;~~

~~edge point detecting means for searching the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area, and for detecting edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;~~

~~pixel block image information generating means for converting sensed information of an area defined by the detected edge points into pixel block image information representing a ratio of image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points; and~~

~~correction means for correcting an image signal based on the pixel block image information,~~

~~wherein the image projection means projects an image based on the corrected image signal.~~

A computer-readable program causing a computer to function as:

image projection means for projecting at least two different colored calibration images at different points of time;

sensing means for sensing each of the projected calibration images to output sensed information;

ratio information generating means for computing a ration of image signal values or luminance values for each pixel in sensing area obtained by sensing the calibration images, based on the sensed information to generate ratio information;

edge point detecting means for searching the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area, and for detecting edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;

pixel block image information generating means for converting sensed information of an area defined by the detected edge points into pixel block image information representing a ratio of image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points; and

correction means for correcting an image signal based on the pixel block image information,

wherein the correction means includes:

distortion correction means for correcting an image signal to correct distortion in an image based on the pixel block image information; and

color non-uniformity correction means for correcting an image signal to correct color non-uniformity based on the pixel block image information; and

wherein the image projection means projects an image based on an image signal with corrected distortion and corrected color non-uniformity.

6. (Currently Amended) ~~An image processing system comprising:~~

~~image projection section which projects at least two different colored calibration images at different points of time;~~

~~sensing section which sense each of the projected calibration images to output sensed information;~~

~~ratio information generating section which computes a ratio of image signal values or luminance values for each pixel in a sensing area obtained by sensing the calibration images, based on the sensed information to generate ratio information,~~

~~edge point detecting section which searches the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area, and detects edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;~~

~~pixel block image information generating section which converts sensed information of an area defied by the detected edge points into pixel block image information representing a ratio or image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points; and~~

~~correction section which corrects an image signal based on the pixel block image information;~~

~~wherein the image projection section projects an image based on the corrected image signal.~~

An information storage medium storing a computer-readable program which causes a computer to function as:

image projection means for projecting at least two different colored calibration images at different points of time;

sensing means for sensing each of the projected calibration images to output sensed information;

ratio information generating means for computing a ratio of image signal values or luminance values for each pixel in a sensing area obtained by sensing the calibration images, based on the sensed information to generate ratio information;

edge point detecting means for searching the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area, and for detecting edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;

pixel block image information generating means for converting sensed information of an area defined by the detected edge points into pixel block image information representing a ratio of image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points; and

correction means for correcting an image signal based on the pixel block image information,

wherein the correction means includes:

distortion correction means for correcting an image signal to correct distortion in an image based on the pixel block image information; and

color non-uniformity correction means for correcting an image signal to correct color non-uniformity based on the pixel block image information; and

wherein the image projection means projects an image based on an image signal with corrected distortion and corrected color non-uniformity.

7. (Currently Amended) ~~A projector comprising;~~

~~image projection section which projects at least two different colored calibration images at different points of time;~~

~~sensing section which senses each of the projected calibration images to output sensed information;~~

~~edge point detecting section which searches the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area and detects edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;~~

~~pixel block image information generating section which converts sensed information of an area defined by the detected edge points into pixel block image information representing a ratio or image signal values or luminance values for each pixel block including one or more pixels based on the sensed information and the detected edge points; and~~

~~correction section which corrects an image signal based on the pixel block image information;~~

~~wherein the image projection section projects an image based on the corrected image signal.~~

An image processing method comprising:

sequentially projecting a plurality of monochromatic calibration images of different colors;

sensing the projected calibration images and outputting sensed information;

computing a ratio of image signal values or luminance values for each pixel in a sensing area obtained by sensing the projected calibration images, based on the sensed information;

generating ratio information for the sensing area;

searching the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined

number of pixels in the sensing area, and detecting edge points of a sensed projected image based on part of the pixel regions having the first value equal to or larger than a first predetermined value;

converting sensed information of an area defied by the detected edge points into pixel block image information representing a ratio of image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points;

correcting an image signal to correct distortion, and color non-uniformity in an image, based on the pixel block image information; and

projecting an image based on the corrected image signal.

8. (Currently Amended) ~~A computer readable program causing a computer to function as:~~

~~Image projection means for projecting at least two difference colored calibration images at different points of time;~~

~~Image projection means for projecting at least two different colored calibration images at different points of time;~~

~~Sensing means for sensing each of the projected calibration images to output sensed information;~~

~~ratio information generating means for computing a ration of image signal values or luminance values for each pixel in sensing area obtained by sensing the calibration images, based on the sensed information to generate ratio information;~~

~~edge point detecting means for searching the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area, and for detecting edge~~

~~points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value;~~

~~pixel block image information generating means for converting sensed information of an area defined by the detected edge points into pixel block image information representing a ratio of image signal values or luminance values for each pixel block including one or more pixels, based on the sensed information and the detected edge points; and~~

~~correction means for correcting an image signal based on the pixel block image information,~~

~~wherein the image projection means projects an image based on the corrected image signal.~~

The image processing method as defined in claim 7, further comprising:

detecting a rectangular region defined by the pixel regions each having the first value equal to or larger than the first predetermined value as a temporary sensed projected image by searching the ratio information for the first value in vertical and horizontal directions form edge points of an area corresponding to the sensing area represented by the ratio information; and

detected edge points at for corners of the sensed projected image as the edge points of the sensed projected image, based on the temporary sensed projected image.

9. (Currently Amended) ~~An information storage medium storing a computer-readable program which causes a computer to function as:~~

~~image projection means for projecting at least two different colored calibration images at different points of time;~~

~~sensing means for sensing each of the projected calibration images to output sensed information;~~

~~ratio information generating means for computing a ration of images signal values or luminance values for each pixel in a sensing area obtained by sensing the calibration images, based on the sensed information to generate ration information;~~

~~edge point detecting means for searching the ratio information to find a first value which represents a ratio of image signal values or luminance values for pixel regions each having a predetermined number of pixels in the sensing area, and for detecting edge points of a sensed projected image, based on part of the pixel regions each having the first value equal to or larger than a first predetermined value; pixel block image information generating means for converting sensed information of an area defined by the detected edge points into pixel block image information representing a ration of image signal values or luminance values for each pixel block including one or more pixels; based o the sensed information and the detected edge points; and~~

~~correction means for correcting an image signal based on the pixel block image information;~~

~~wherein the image projection means projects an image based on the corrected image signal.~~

The image processing method as defined in claim 8, wherein:

when the number of detected edge points is three or less, other edge points are detected by a predetermined method; and

the predetermined method includes:

counting the numbers of pixels from an edge pixel to a pixel having the ratio represented by the ratio information equal to or larger than a second predetermined value in each pixel line of the temporary sensed projected image;

computing a changing rate of a ratio of the number of pixels in every two adjacent pixel lines of the temporary sensed projected image; and

detecting pixels having the ratio represented by the ratio information equal to or larger than the second predetermined value as the other edge points in the pixel line having the changing rate equal to or larger than a third predetermined value.

10. (Canceled)

11. (Canceled)

12. (Canceled)